FEBRUARY 2024

CURRENTS

The 1936 Flood: A valuable lesson from Pittsburgh's past

Venice or Pittsburgh? A rowboat navigates high waters in a flooded downtown on March 18, 1936.

On St. Patrick's Day in 1936, the pastor at St. Stanislaus church wasn't available to lead a sermon. He was trapped on the second story of the church as pews floated on the floor below him. Trolley cars on Penn Avenue were empty of passengers and instead filled with water. Pittsburgh was inundated. An exceptional amount of rain had fallen in the days leading up to this historic flood and the winter of '36 had been very snowy, particularly Northeastern states and north central Pennsylvania.

Though Pittsburghers might not have been thinking about watershed dynamics and much less forests hundreds of miles away as they boarded rescue boats to escape rising flood waters, the story of the 1936 flood is one of land use, waterway management, and stormwater planning with lessons and impacts that affect us today.

The forests of north central PA in the 1930s were in bad shape. They had endured decades of aggressive timbering during which tracts of land were entirely clear-cut and the lumber was sent down the Allegheny River to market. In the 1880s, it wouldn't have been uncommon to see rafts of lumber the length of three football fields floating downstream towards the city from the forests of northern Pennsylvania[1]. The cleared land left behind became known to locals as the Pennsylvania Desert[2]. This region, also the headwaters of the Allegheny River, was the lumber capital of the world and it showed.

Though efforts were already underway in the 1930s to repair the forests from the overlogging of decades prior, the trees and herbaceous plants which would normally slow water from storms and snowmelt were gone. The absorbent soils had been eroded. When forests, permeable soils, and ground cover are removed, the land can provide little help in holding back high amounts of stormwater, as was the case in 1936.

The devastation of the flood was profound and led lawmakers to pass the Flood Control Act of 1936 which resulted in the construction of the Kinzua dam on the upper Allegheny and several locks and dams on our three rivers. These locks and dams continue to protect Pittsburgh from floods today as they store runoff from snowmelt and rain events and release it downstream more slowly.

Along with the flood control projects on waterways came more wisdom about management practices on land. The original Flood Control Act would be expanded upon in the decades after the flood and led to several land-based watershed protections as well as much of the research and protections that ultimately guide policy today.

Better management of land environments over the years has benefited everyone in the watershed.

Water-aware land stewardship is something that each of us can do. When we add permeable surfaces, absorbent soils, raingardens, and bioswales to our homes and neighborhoods, we are taking steps to reduce stormwater runoff and flood risk by collectively creating an effect like the ecosystem services of a forest. And, these actions, when done properly, can result in a stormwater credit and reduce your stormwater fee.

The Pittsburgh Water and Sewer Authority (PWSA) supports the efforts of our community with several green infrastructure projects that lessen stormwater impacts, reduce the risks of flooding, and embody the land stewardship ethic we know makes a difference to our waterways. Learn how PWSA puts each dollar to work by planning for our stormwater future: pgh2o.com/stormwater-plans.

1 Warren County Historical Society. Lumber Rafting (n.d.). Available at: https://www.warrenhistory.org/Lumber/4lumber%20rafting.html (Accessed: 20 September 2023).

2 Explore PA History. Stories from PA History. (n.d.). Available at: https://explorepahistory.com/story.php?storyId=1-9-E&chapter=1#:~:text=By%201900,%20Pennsylvania%20had%20lost,some%20350,000%20acres%20each%20year. (Accessed: 15 December 2023).

Next Board Meeting: February 23

For more information and to join a PWSA Board Meeting, please visit pgh2o.com/board

For a complete list of PWSA's community meetings and events, please visit pgh2o.com/events-meetings.

Join our email list to get the latest news and updates.

Signing up is simple at **pgh2o.com/subscribe.**

Additional Stormwater Resources

Explore the resources below for additional information about the stormwater fee, the stormwater credit program, and a searchable map to understand the amount of hard surface on your property.

Stormwater Credit Program: Property owners choosing to manage stormwater on site may reduce their monthly stormwater charge by installing stormwater management systems such as a rain garden or an underground stormwater system on their property. For information about the stormwater credit and to apply visit pgh2o.com/stormwater-fee.

Fee Finder Website: Use our searchable map to view the amount of impervious surface on your property and understand your stormwater fee. To use the site:

- Launch the Fee Finder Website
- Enter your address in the search bar and press enter
- Click inside the boundaries of your property for the amount of impervious surface and Equivalent Residential Units (ERU's)
- To determine your fee amount, multiply the number of ERU's by the current stormwater rate and subtract any credits that may apply

Disputing Stormwater Fee: If you have questions about the amount of impervious surface calculated for your property or believe there is a discrepancy, please contact our Customer Service department by calling 412-255-2423 (Press 5), to start the process.

Questions: Please call PWSA Customer Service at 412-255-2423 (Press 5) or email info@pgh2o.com for questions about the stormwater fee or general questions about the credit program. For more information about our plans to manage stormwater, please visit pgh2o.com/stormwater.

Neighbors Helping Neighbors

Your donation to PWSA's Hardship Grant Program will directly benefit PWSA customers having difficulty paying their bill. Donate online at pgh2o.com/give.

Enroll in eBilling

Convenient and easy to use, our online billing and payment portal ensures timely delivery of bills and payments. Visit pgh2o.com/ebilling to enroll.

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Customer Service*
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info@pgh2o.com
*translation services available

Emergency Dispatch*
412.255.2423 (Press 1)
Available 24/7

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PGH2O WATER WISE

Winter Tips for Green Stormwater Infrastructure

Our Centre and Herron stormwater project in the Hill District.

Green stormwater infrastructure such as rain gardens, permeable pavement, and rain barrels mimic nature to capture, store, and filter stormwater. Even when plants are dormant during winter, green infrastructure continues to function, helping to reduce flooding and river pollution. However, improper handling of snow and ice can damage our public green stormwater projects and residents' private rain gardens or rain barrels.

Follow these tips to protect green infrastructure during winter:

- Do not overapply de-icing salt or sand on sidewalks or streets, especially next to green infrastructure. De-icing salts can harm plants and water quality, while sand can clog rain gardens and permeable pavement.
- Do not plow or shovel snow piles next to or on top of green infrastructure, since piles block stormwater flow and crush plants and soil.
- Make sure rain barrels are completely drained and spigots are left open to prevent freeze damage. Switch downspout diverters to bypass the barrels so that stormwater drains through the downspout. If storing barrels outside, cover with a tarp.
- On a snow-free, sunny day, take a quick peak at garden projects. If the soil isn't frozen, do a quick raking to remove remaining debris or litter and loosen soils compacted by snow so that they are better able to absorb water for the rest of the winter.

Learn more at **pgh2o.com/help-manage-stormwater.**